

ABSTRACT OF THE DISCLOSURE

A heater effectively uses a current controlled fan motor in series with a resistance heating arrangement. The fan motor preferably is wound with a gauge of wire to appropriate for the relatively high current provided to the fan motor. This arrangement is effectively used to adjust the fan speed to match the heat output when the heating arrangement has variable heat output. More desirable operating characteristics are achieved without increasing costs and fan motor manufacturing savings are realized. The portable heater preferably produces heat at different outputs and the current used to power the resistance heating arrangement is used to power the fan motor.